

Title (en)

TRAFFIC LIGHT RECOGNITION DEVICE AND TRAFFIC LIGHT RECOGNITION METHOD

Title (de)

VERKEHRSAMPELERKENNUNGSVORRICHTUNG UND VERKEHRSAMPELERKENNUNGSVERFAHREN

Title (fr)

DISPOSITIF DE RECONNAISSANCE DE FEU DE CIRCULATION ET PROCÉDÉ DE RECONNAISSANCE DE FEU DE CIRCULATION

Publication

**EP 3324383 A1 20180523 (EN)**

Application

**EP 15898246 A 20150713**

Priority

JP 2015070041 W 20150713

Abstract (en)

A traffic light recognition device includes: a camera (11) that captures an image around a vehicle; a map information acquisition unit (17) configured to acquire map information around the vehicle; a vehicle current position detector (12) configured to detect a current position on a map of the vehicle; and a traffic light position estimator (21) configured to estimate a position on the map of the traffic light on the basis of the current position and the map information. The traffic light recognition device further includes: an imaging attitude setting unit (23) configured to set an imaging direction of the camera on the basis of a position on the image of the traffic light and of a moving direction in the future on the image of the traffic light; a camera attitude controller (24) configured to change the imaging direction of the camera to an imaging direction set by an imaging direction setting unit; and a traffic light recognition unit (14) configured to recognize the traffic light from an image captured in the imaging direction by the camera. The traffic light recognition device is capable of accurately detecting the lighting state of a traffic light without being affected by the attitude of a camera.

IPC 8 full level

**G08G 1/16** (2006.01); **H04N 5/225** (2006.01)

CPC (source: EP KR RU US)

**B60R 11/04** (2013.01 - US); **G06F 18/00** (2023.01 - RU); **G06V 20/582** (2022.01 - US); **G06V 20/584** (2022.01 - EP US); **G08G 1/09623** (2013.01 - EP US); **G08G 1/0967** (2013.01 - RU); **G08G 1/16** (2013.01 - KR RU); **H04N 23/00** (2023.01 - US); **B60W 2555/60** (2020.02 - US); **G06T 2207/30256** (2013.01 - US); **H04N 23/00** (2023.01 - EP KR RU)

Cited by

CN114332815A

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

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**EP 3324383 A1 20180523**; **EP 3324383 A4 20181205**; **EP 3324383 B1 20210519**; BR 112018000191 A2 20180911; BR 112018000191 B1 20230214; CA 2992080 A1 20170119; CA 2992080 C 20200128; CN 107851387 A 20180327; CN 107851387 B 20210427; JP 6447729 B2 20190116; JP WO2017009933 A1 20180531; KR 101988811 B1 20190612; KR 20180018732 A 20180221; MX 2018000377 A 20180314; MX 361911 B 20181219; RU 2693419 C1 20190702; US 10339805 B2 20190702; US 2018365991 A1 20181220; WO 2017009933 A1 20170119

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